

**RECEIVED  
CENTRAL FAX CENTER****JUN 09 2006**Serial No. 10/725,359  
60246-306; 10766**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellant: Carlambrogio Bianchi

Group Art Unit: 3753

Serial No.: 10/725,359

Examiner: Duong, Tho V.

Filed: December 1, 2003

Title: BENT COIL FOR DUCTED UNIT

**REPLY BRIEF**Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is in reply to the Examiner's Answer mailed April 11, 2006. The Examiner's Answer raises two main arguments, which require some brief responses.

**ARGUMENT RELATING TO THE USE OF MORE THAN ONE FAN**

First, beginning on page 6, the Examiner argues that "the number of fans can be used in a heat exchanger system is just a design consideration since it is a common knowledge that two fans can generate more air than one fan" [*sic*].

**Answer:**

Appellant is claiming an apparatus comprising at least two fans moving unconditioned air towards a bent coil. The examiner states that the cost of operating two fans is higher than operating one fan, and that the selection of two fans over one fan is just a design consideration between cost and cooling capacity. This is not a proper motivation because although the cost of operating two fans may be higher than the cost of operating one fan, it is also true that the cost of operating one fan may be higher than the cost of operating two fans. Further, the selection of two fans over one fan is not just a design consideration between cost and cooling capacity. Instead, as noted in Appellant's brief, at least two fans provide more control over the unconditioned air than provided by one fan. Thus, the selection of two fans also affects the unconditioned air flow

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through the bent coil, not just cost and cooling capacity and provides a benefit to the claimed invention.

The Examiner refers to Martin and Sullivan and states that their combined teachings would have suggested to one of ordinary skill in the art to use more than one fan *for a purpose of increasing the amount of air flowing over the coil*. However, employing the two fans of Sullivan in Martin would not increase the air flow across the coil. Instead, *the air flow would decrease* as the additional fan motor requires its own area within the duct in Martin. As the second motor would occupy a portion of the cross-sectional area within the duct, the area of the airflow from the fans would need to decrease to accommodate the second motor. Further, one of ordinary skill in the art would not use the fans of Sullivan in Martin. Because the two fans of Sullivan mount to a drip tray, their configuration is limited to orientations having the drip tray below the coil. The examiner relies on Sullivan to teach a number of fans, but if the fans of Sullivan were incorporated into Martin, the combination would destroy a benefit of Martin. One skilled in the art would not use the two fans of Sullivan in Martin. Therefore, their combination does not teach the claimed invention.

#### **ARGUMENTS RELATING TO THE DIRECTION OF AIR DISCHARGED THROUGH THE COIL SURFACE**

Also on page 6, the Examiner argues that Martin anticipates claim 2 because in Martin the direction of air exiting an outlet at an end of the duct is a first direction and that air exiting the sides of the duct is considered a second direction.

#### **Answer:**

The Appellant claims *a bent coil* having a surface through which outlet air is discharged in a first direction and a second direction different than the first direction. The Examiner states that Martin discloses this feature because the air in Martin exits outlets (108) at the end and the two sides of the duct. To achieve this result, Martin relies on the ducts to direct the air. Martin does not disclose "a bent coil having a coil surface through which outlet air is discharged in a first direction and a second direction different than the first direction." The Examiner erroneously considers air exiting the duct in Martin to be the same as air exiting the coil in the

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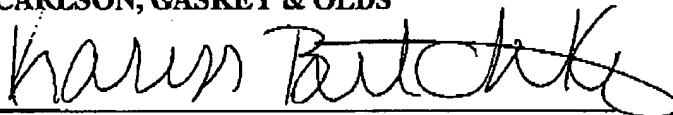
Appellant's invention. Because Martin does not disclose outlet air discharged through a bent coil having a first direction and a second direction, Martin does not anticipate the Appellant's claimed invention.

### CLOSING

For the reasons set forth above, and for the reasons set forth in the main brief, the rejection must be reversed.

Respectfully Submitted,

**CARLSON, GASKEY & OLDS**

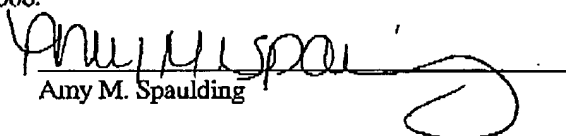


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### CERTIFICATE OF FACSIMILE

I hereby certify that this reply brief is being facsimile transmitted to the United States Patent and Trademark Office, 703-872-9306 on June 9, 2006.



Amy M. Spaulding

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